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THE EVALUATION OF SELF-INSTRUCTIONAL FOREIGN LANGUAGE COURSES.

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CRITERIA FOR THE EVALUATION OF SELF-INSTRUCTIONAL LANGUAGE COURSES ARE DISCUSSED IN THIS PAPER. EXAMPLES ARE BASED ON A RUSSIAN COURSE DEVELOPED BY THE AUTHOR UNDER THE CONTACT CONTRACT. TEN CRITERIA ARE IDENTIFIED, THE THREE MOST BASIC OF WHICH ARE THE FOLLOWING--ARE THE TERMINAL OBJECTIVES MET, DO THE STUDENTS IN THE EVALUATION STUDY REPRESENT THE POTENTIAL STUDENT BODY FOR THE COURSE, IS THE COURSE COMPLETELY SELF-INSTRUCTIONAL. THE OTHER CRITERIA ARE CONSUMER-DIRECTED AND INVOLVE SUCH CONSIDERATIONS AS THE COST AND TIME FACTORS FOR THE PROGRAM. THIS PAPER WAS TO BE PRESENTED AT THE ANNUAL CONVENTION OF THE NATIONAL SOCIETY FOR PROGRAMED INSTRUCTION (SAN ANTONIO, APRIL 1-4, 1964). (RS)

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THE EVALUATION OF SELF-INSTRUCTIONAL FOREIGN LANGUAGE COURSES

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The record shops of our nation have, for many years, stocked and advertised foreign language courses hopefully entitled with variant renditions of the self-instructional label. Most of us have learned to our dismay that a ten or twenty-dollar bill does not purchase usable language skills by taking such courses, except in rather rare circumstances.

That this same situation is repeating itself in the case of the new programmed, self-instructional foreign language courses is easily seen by examining the book entitled Programs '63, A Guide to Programmed Instructional Materials* compiled and produced by the Center for Programmed Instruction and The Office of Education. It will be seen that few, if any, of the language courses described provide any evidence of training effectiveness. The general lack of adequate evaluational data for most of the self-instructional foreign language courses presently on the market is a serious deficiency that reflects on the language programming movement as a whole.

The purpose of this paper is to list and describe the various criteria that should be used in the evaluation of self-instructional language courses so that the consumer, whoever he may be, does not have to purchase a "pig in the poke" when he buys a self-instructional foreign language course.

In order that this be no mere academic exercise, I shall describe an actual example of evaluating a self-instructional foreign language course with the realization that not all the criteria here used are applicable to the evaluation of every other self-instructional foreign language course. However, it should be incumbent upon the evaluator of any other such courses to give some reason why any of the criteria listed here are not utilized or to have his evaluation considered as incomplete.

I should then like to describe procedures just recently carried out in evaluating a self-instructional foreign language course at the Human Resources Research Office in Alexandria, Virginia. This course was a newly revised Russian self-instructional course aimed at providing the student with the ability to speak and understand enough Russian to obtain tactical information from newly captured prisoners of war. The original course is described in HumRRO Research Report No. 9 entitled "Development and Evaluation of Training Methods for the Rapid Acquisition of Language Skills."

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*Programs '63, A Guide to Programmed Instructional Materials, The Center for Programed Instruction, Inc., Washington, D.C.: U. S. Government Printing Office, 1963.

As most of us know, evaluation of a self-instructional foreign language course really begins not when the course has been administered for the first time, but before it has been constructed. With that as our starting point, let me describe this course, how it was evaluated and results of the evaluation.

This course was constructed to fill a specific need. The soldier who captures a POW usually cannot speak or understand enough of the enemy language to question his prisoner. Information concerning the immediate combat situation that might be of value cannot, therefore, usually be acquired by the man who needs it the most and who is in the best position to obtain it.

The HumRRO course was designed to meet this objective. This then is the first criterion and it happens to be a composite, as most terminal objectives of self-instructional foreign language courses are. It is a composite criterion in the sense that there are two objectives:

1. Are the course terminal objectives met?

    a. Does the student master the course material?

    b. Can the student after mastering the course material perform the actual job given as the final course objective?

2. The second criterion, is also a multiple one in most cases. Do the students used in the evaluation represent the potential student body? In this case, we have designated the potential student:

    a. as similar to an United States Army enlisted man,

    b. of average language aptitude as measured by the Army Language Aptitude Test (ALAT score of 22 = 49th percentile),

    c. in the ~~25~~ 17 to ~~30~~ 25 year age range,

    d. with no relevant experience in the Slavic language family, and

    e. with no college training.

The third criterion is simple but important:

3. Is the course completely self-instructional (including interim and final evaluation measures)?

The next seven criteria are basically consumer oriented and are mentioned here primarily because they must also be taken into consideration before the course is constructed. Generally speaking, these seven criteria will vary according to the individual consumer and can only be applied in the case of standards laid down by the consumer which are to be met by the course constructor or where multiple, self-instructional courses in the same language designed to meet the same terminal objectives exist and can be compared. These are:

4. Is cost of training equipment acceptable?

5. Is time for mastery of course material acceptable?

6. Is flexibility of course scheduling acceptable?

7. Is type of student learning environment acceptable?

8. Is there provision for efficient maintenance and/or relearning of acquired foreign-language skills?

9. Is course format generalizable to other foreign languages?

10. Has the evaluation been replicated?

The HumRRO course was designed to meet such consumer-specified criteria plus the ones listed previously. After sufficient sets of course equipment were acquired, seven students were selected and put through the course on a fully self-instructional basis. I happened to supervise the administration of this course. However the actual work and contact with the students was carried out by an assistant who did not have any knowledge of the relevant foreign language. After the students had completed the course, they were tested to see if they had achieved course terminal objectives. Table I lists the student characteristics; Table 2, the time needed to complete the course. Table III gives the results of the final end-of-course test, and Table IV gives the results of the job performance tests. (See pages 7, 8, 9 and 10 for these tables.)

A colleague, Dr. Herbert Leedy, supervised another administration of the same course given this time to five students. The following four tables represented on pages 11, 12, 13 and 14 provide information similar to that given previously.

Another colleague, Dr. Catherine Garvey, constructed and evaluated a Mandarin Chinese course following the format of the original Russian course. She supervised the administration of this course as given to six students. The results obtained were similar to the results of the two previous administrations mentioned above.

In summary, let us go over the ten criteria used in this evaluation of a self-instructional foreign language course and show in detail, where appropriate, which were or were not met.

Criterion 1. Were the course terminal objectives met?

a. Did the students master the course material?

This was measured by administering an end-of-course test. This test covered all of the material in the

entire course and Table II gives the scores for speaking and understanding the foreign language and a global evaluation of the student's pronunciation. Each of these end-of-course tests was scored by two native speakers with almost perfect reliability.

b. Can the student perform the actual job given as the course objective?

This was measured by administering a job performance test. The job performance test consisted of having the student question a native speaker whom he had never seen before in a simulated combat situation. This communication situation was recorded for the later scoring by native speakers. Table IV lists the information transmission score of each student.

A criterion derived from the conventional standards used in evaluating self-instructional courses dealing with non-foreign language subject matter was used with these CONTACT courses.

These non-language courses are hopefully aimed at achieving a 90-90 criterion; that is, 90 percent of the students get or master 90 percent of the course material. We have modified this criterion to fit the special aspects of self-instructional foreign language training and feel this criterion as given below merits some consideration.

"The self-instructional foreign language courses achieve their academic objective if all of the students of average or above average language-learning aptitude as measured by the Army Language Aptitude Test master 90 percent of the course material. For students with less than average language learning ability, academic objectives are considered achieved if 70 to 80 percent of the course material is mastered. Such scores warrant testing the students to determine how well they meet job performance objectives."

Achievement of job performance objectives is a much more difficult area of measurement and will vary considerably depending on the job and the job situation. A rough rule of thumb we have used with these CONTACT courses is that job performance objectives have been achieved if students of average- and above-average language learning aptitude have been able to perform in the job-simulated tests at a 90 percent measured level of effectiveness. Students of below-average language learning aptitude have achieved job performance objectives if they perform at a 50 percent measured level of effectiveness as a basic minimum.

Criterion 2. Did the students used in the evaluation represent the potential student body?

Student characteristics given in Table I for the two replications of course evaluation show that this criterion has been met, i.e., students representative of the potential student body have satisfactorily mastered the course.

Criterion 3. Is the course completely self-instructional (including interim and final evaluation measures)?

This criterion was met on the several levels indicated. First, no live instruction was given to the students; second, mastery of each lesson of the course was achieved only when every student response for that lesson was given correctly. Third, while interim and final tests were administered and scored by the researchers for obvious reasons, the course does have student self-scoring procedures available for three interim tests and the final end-of-course test.

Criterion 4. Is cost of training equipment acceptable?

The estimated costs of training equipment per man trained has been judged as falling within acceptable limits from the researcher's point of view.

Criterion 5. Is time for mastery of course material acceptable?

The time taken to master the course material by each student is given in Table II and has been judged as falling within useful limits from the researcher's point of view.

Criterion 6. Is flexibility of course scheduling acceptable?

The design of the course lends itself readily to a variety of scheduling situations. Several of the students in these evaluations took the course on a half-day schedule as compared to others who took it on a full-day basis.

Criterion 7. Is type of student learning environment acceptable?

Any reasonably quiet study environment is sufficient to satisfy this criterion as was demonstrated in these evaluations.

Criterion 8. Is there provision for efficient maintenance and/or relearning of required foreign-language skills?

Problems of retention are handled in this manner. First, the courses are short enough so that they may be administered just prior to the activity which necessitates their administration, thus completely eliminating retention problems.

Second, a special set of lessons called Review-Preview Lessons are so designed as to form an integrated and compact unit of three or four lesson tapes which permits going over all the course material on a programmed basis so that it is not necessary to go through the entire course for relearning purposes.

Criterion 9. Is course format generalizable to other foreign languages?

The construction and evaluation of the Mandarin Chinese course meets this criterion.

Criterion 10. Has the evaluation been replicated?

The two replications of this self-instructional foreign language course as described in this paper satisfies this criterion.

It can be seen that in order to meet these criteria meaningfully, each criterion must be further broken down in terms of a specific standard or set of conditions appropriate to the overall purpose for which the course is constructed.

Regardless of any appraisal of course effectiveness that could be made here, the major point of this paper is that the evaluation described herein gives the prospective buyer enough reliable information to decide whether or not he will use this self-instructional course.

Only when self-instructional foreign language courses are evaluated using all or most of these 10 criteria can we as programmers and producers of such courses be assured that our efforts are not being undermined by a host of hastily-put-together courses offered for sale under the title of "Programmed, Self-instructional Language Courses."

TABLE I

STUDENT CHARACTERISTICS

Student	Age	Education	Foreign Lang. Exper.	Army Lang. Aptitude Test[a] Student Raw Score	Army Lang. Aptitude Test[a] Percentile Army EM[b]
1	18	H. S. Grad.	French	45	97
2	17	H. S. Grad.	French	35	90
3	18	H. S. Grad.	Spanish	24	60
4	18	H. S. Grad.	Latin	19	34
5	18	12th Grade	Spanish	15	19
6	17	H. S. Grad.	None	14	17
7	17	12th Grade	French	10	09

[a] Army Language Aptitude Test, Office of the Adjutant General, Department of the Army Form 6131, (1957). (The present cut-off point for acceptance at the Army Language School is ALAT 18.)

[b] Based on a sample (N = 294) of Army Enlisted Men at Fort Bragg and Fort Riley.

TABLE II

TIME FOR COMPLETION OF THE COURSE

Student	Working Time (Hours & Minutes)	Course Time (Hours)	Total Time (Hours)
1	53:35	64	78
2	51:05	61	72
3	56:32	67	78
4	42:03	52	66
5	54:04	64	78
6	68:21	78	90
7	64:27	74	90

TABLE III

FINAL TAPE TEST SCORES AND PRONUNCIATION RATINGS

Student	Test Score (% Correct) Speaking	Understanding	Total	Pronunciation Rating
1	95	100	98	Fair
2	97	96	97	Good
3	97	96	97	Good
4	100	96	98	Good
5	95	89	92	Good
6	95	89	92	Good
7	88	82	85	Fair

TABLE IV

JOB PERFORMANCE TEST

Student	No. of Questions asked by Student	No. of Answers Correctly Translated	Information Transmission Score
1	37	35	94
2	59	54	91
3	46	40	86
4	50	48	96
5	50	47	94
6	49	45	92
7	47	42	89

TABLE I

STUDENT CHARACTERISTICS
(Second Administration)

Student	Age	Education	Foreign Lang. Exper.	Army Lang. Aptitude Test[a] Student Raw Score	Army Lang. Aptitude Test[a] Percentile Army EM[b]
1	20	H.S. Grad.	Latin-Spanish	24	60
2	22	H.S. Grad.	None	17	25
3	20	H.S. Grad.	Spanish	9	07
4	18	H.S. Grad.	French-German	7	05
5	21	H.S. Grad.	None	00	00

[a]Army Language Aptitude Test, Office of the Adjutant General, Department of the Army Form 6131, (1957). (The persent cut-off point for acceptance at the Army Language School is ALAT 18.)

[b]Based on a sample (N=294) of Army Enlisted Men at Fort Bragg and Fort Riley.

TABLE II

TIME FOR COMPLETION OF THE COURSE
(Second Administration)

Student	Working Time (Hours & Minutes)	Course Time (Hours)	Total Time (Hours)
1	51:36	62	102
2	32.33	43	78
3	58:06	68	102
4	58:34	69	96
5	86:30	96	162

TABLE III

FINAL TAPE TEST SCORES AND PRONUNCIATION RATINGS
(Second Administration)

Student	Test Score (% Correct) Speaking	Understanding	Total	Pronunciation Rating
1	91	98	94	Fair
2	95	98	96	Good
3	92	98	95	Excellent
4	95	98	96	Fair
5	73	75	74	Fair

TABLE IV

JOB PERFORMANCE TEST
(Second Administration)

Student	No. of Questions asked by Student	No. of Answers Correctly Translated	Information Transmission Score
1	52	47	90
2	45	38	84
3	51	43	84
4	60	52	87
5	54	43	79